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- The Bretton Woods System and the International Monetary Fund
- Internal and External Balance Under the Bretton Woods System
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Chapter Organization

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- Worldwide Inflation and the Transition to Floating Rates
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Introduction

- The interdependence of open national economies has made it more difficult for governments to achieve full employment and price stability.
  - The channels of interdependence depend on the monetary and exchange rate arrangements.
- This chapter examines the evolution of the international monetary system and how it influenced macroeconomic policy.
In open economies, policymakers are motivated by two goals:

- **Internal balance**
  - It requires the full employment of a country’s resources and domestic price level stability.

- **External balance**
  - It is attained when a country’s current account is neither so deeply in deficit nor so strongly in surplus.
Internal Balance: Full Employment and Price-Level Stability

- Under- and overemployment lead to price level movements that reduce the economy’s efficiency.
- To avoid price-level instability, the government must:
  - Prevent substantial movements in aggregate demand relative to its full-employment level.
  - Ensure that the domestic money supply does not grow too quickly or too slowly.
Macroeconomic Policy Goals in an Open Economy

- **External Balance: The Optimal Level of the Current Account**
  - External balance has no full employment or stable prices to apply to an economy’s external transactions.
  - An economy’s trade can cause macroeconomic problems depending on several factors:
    - The economy’s particular circumstances
    - Conditions in the outside world
    - The institutional arrangements governing its economic relations with foreign countries
• **Problems with Excessive Current Account Deficits:**
  
  – They sometimes represent temporarily high consumption resulting from misguided government policies.
  
  – They can undermine foreign investors’ confidence and contribute to a lending crisis.
Macroeconomic Policy Goals in an Open Economy

- **Problems with Excessive Current Account Surpluses:**
  - They imply lower investment in domestic plant and equipment.
  - They can create potential problems for creditors to collect their money.
  - They may be inconvenient for political reasons.
Several factors might lead policymakers to prefer that domestic saving be devoted to higher levels of domestic investment and lower levels of foreign investment:

- It may be easier to tax
- It may reduce domestic unemployment.
- It can have beneficial technological spillover effects
Origins of the Gold Standard

- The gold standard had its origin in the use of gold coins as a medium of exchange, unit of account, and store of value.

- The Resumption Act (1819) marks the first adoption of a true gold standard.
  - It simultaneously repealed long-standing restrictions on the export of gold coins and bullion from Britain.

- The U.S. Gold Standard Act of 1900 institutionalized the dollar-gold link.
External Balance Under the Gold Standard

- Central banks
  - Their primary responsibility was to preserve the official parity between their currency and gold.
  - They adopted policies that pushed the nonreserve component of the financial account surplus (or deficit) into line with the total current plus capital account deficit (or surplus).
    - A country is in balance of payments equilibrium when the sum of its current, capital, and nonreserve financial accounts equals zero.

- Many governments took a laissez-faire attitude toward the current account.
The Price-Specie-Flow Mechanism

- The most important powerful automatic mechanism that contributes to the simultaneous achievement of balance of payments equilibrium by all countries
  - The flows of gold accompanying deficits and surpluses cause price changes that reduce current account imbalances and return all countries to external balance.

- The practices of selling (or buying) domestic assets in the face of a deficit (or surplus).
  - The efficiency of the automatic adjustment processes inherent in the gold standard increased by these rules.
  - In practice, there was little incentive for countries with expanding gold reserves to follow these rules.
  - Countries often reversed the rules and sterilized gold flows.
Internal Balance Under the Gold Standard

- The gold standard system’s performance in maintaining internal balance was mixed.
  - Example: The U.S. unemployment rate averaged 6.8% between 1890 and 1913, but it averaged under 5.7% between 1946 and 1992.
The Interwar Years, 1918-1939

- With the eruption of WWI in 1914, the gold standard was suspended.
  - The interwar years were marked by severe economic instability.
  - The reparation payments led to episodes of hyperinflation in Europe.

- The German Hyperinflation
  - Germany’s price index rose from a level of 262 in January 1919 to a level of 126,160,000,000,000 in December 1923 (a factor of 481.5 billion).
The Fleeting Return to Gold

- **1919**
  - U.S. returned to gold

- **1922**
  - A group of countries (Britain, France, Italy, and Japan) agreed on a program calling for a general return to the gold standard and cooperation among central banks in attaining external and internal objectives.
The Interwar Years, 1918-1939

• 1925
  – Britain returned to the gold standard

• 1929
  – The Great Depression was followed by bank failures throughout the world.

• 1931
  – Britain was forced off gold when foreign holders of pounds lost confidence in Britain’s commitment to maintain its currency’s value.
International Economic Disintegration

- Many countries suffered during the Great Depression.
- Major economic harm was done by restrictions on international trade and payments.
- These beggar-thy-neighbor policies provoked foreign retaliation and led to the disintegration of the world economy.
- All countries’ situations could have been bettered through international cooperation
  – Bretton Woods agreement
The Interwar Years, 1918-1939

**Figure 18-1: Industrial Production and Wholesale Price Index Changes, 1929-1935**

Countries such as Australia and the United Kingdom that left the gold standard early and adopted countercyclical monetary policies experienced milder declines in output during the Great Depression. Countries such as France and Switzerland that stuck with the gold standard longer had greater declines in price levels and output.

The Bretton Woods System and the International Monetary Fund

- **International Monetary Fund (IMF)**
  - In July 1944, 44 representing countries met in Bretton Woods, New Hampshire to set up a system of fixed exchange rates.
    - All currencies had fixed exchange rates against the U.S. dollar and an unvarying dollar price of gold ($35 an ounce).
  - It intended to provide lending to countries with current account deficits.
  - It called for currency convertibility.
Goals and Structure of the IMF

- The IMF agreement tried to incorporate sufficient flexibility to allow countries to attain external balance without sacrificing internal objectives or fixed exchange rates.

- Two major features of the IMF Articles of Agreement helped promote this flexibility in external adjustment:
  - IMF lending facilities
  - IMF conditionality is the name for the surveillance over the policies of member counties who are heavy borrowers of Fund resources.
  - Adjustable parities
Convertibility

- Convertible currency
  - A currency that may be freely exchanged for foreign currencies.
    - Example: The U.S. and Canadian dollars became convertible in 1945. A Canadian resident who acquired U.S. dollars could use them to make purchases in the U.S. or could sell them to the Bank of Canada.

- The IMF articles called for convertibility on current account transactions only.
The Changing Meaning of External Balance

- The “Dollar shortage” period (first decade of the Bretton Woods system)
  - The main external problem was to acquire enough dollars to finance necessary purchases from the U.S.

- Marshall Plan (1948)
  - A program of dollar grants from the U.S. to European countries.
    - It helped limit the severity of dollar shortage.
Speculative Capital Flows and Crises

- Current account deficits and surpluses took on added significance under the new conditions of increased private capital mobility.
  - Countries with a large current account deficit might be suspected of being in “fundamental disequilibrium” under the IMF Articles of Agreement.
  - Countries with large current account surpluses might be viewed by the market as candidates for revaluation.
To describe the problem an individual country (other than the U.S.) faced in pursuing internal and external balance under the Bretton Woods system of fixed exchange rates, assume that:

\[ R = R^* \]
Maintaining Internal Balance

• If both $P^*$ and $E$ are permanently fixed, internal balance required only full employment.
• Investment is assumed constant.
• The condition of internal balance:

$$Y^f = C(Y^f - T) + I + G + CA(E_{P^*}/P, Y^f - T) \quad (18-1)$$

– The policy tools that affect aggregate demand and therefore affect output in the short run.
Figure 18-2: Internal Balance (II), External Balance (XX), and the “Four Zones of Economic Discomfort”
Maintaining External Balance

- How do policy tools affect the economy’s external balance?
  
  - Assume the government has a target value, $X$, for the current account surplus.
  
  - External balance requires the government to manage fiscal policy and the exchange rate so that:

  \[ CA(EP^*/P, Y - T) = X \]  
  
  - To maintain its current account at $X$ as it devalues the currency, the government must expand its purchases or lower taxes.
Expenditure-Changing and Expenditure-Switching Policies

- Point 1 (in Figure 18-2) shows the policy setting that places the economy in the position that the policymaker would prefer.

- **Expenditure-changing policy**
  - The change in fiscal policy that moves the economy to Point 1.
  - It alters the level of the economy’s total demand for goods and services.
Analyzing Policy Options
Under the Bretton Woods System

- **Expenditure-switching policy**
  - The accompanying exchange rate adjustment
  - It changes the direction of demand, shifting it between domestic output and imports.

- Both expenditure changing and expenditure switching are needed to reach internal and external balance.
Analyzing Policy Options
Under the Bretton Woods System

Figure 18-3: Policies to Bring About Internal and External Balance

1. Devaluation that results in internal and external balance
2. Fiscal expansion that results in internal and external balance
3. Fiscal ease (G↑ or T↓)

Devaluation that results in internal and external balance

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The External Balance Problem of the United States

- The U.S. was responsible to hold the dollar price of gold at $35 an ounce and guarantee that foreign central banks could convert their dollar holdings into gold at that price.
  - Foreign central banks were willing to hold on to the dollars they accumulated, since these paid interest and represented an international money par excellence.

- The **Confidence problem**
  - The foreign holdings of dollars increased until they exceeded U.S. gold reserves and the U.S. could not redeem them.
Special Drawing Right (SDR)

- An artificial reserve asset
- SDRs are used in transactions between central banks but had little impact on the functioning of the international monetary system.
The External Balance Problem of the United States

Figure 18-4: U.S. Macroeconomic Data, 1964-1972

(a) Government purchases growth rate (percent per year)
The External Balance Problem of the United States

Figure 18-4: Continued

(b) Inflation rate (percent per year)
Figure 18-4: Continued

(c) Current account surplus ($ billion)

Figure 18-4: Continued

(d) Money supply growth rate (percent per year)

Source: Economic Report of the President, 1985. Money supply growth rate is the December to December percentage increase in M1. Inflation rate is the percentage increase in each year’s average consumer price index over the average consumer price index for the previous year.
The acceleration of American inflation in the late 1960’s was a worldwide phenomenon.

- It had also speeded up in European economies.

When the reserve currency country speeds up its monetary growth, one effect is an automatic increase in monetary growth rates and inflation abroad.

Worldwide Inflation and the Transition to Floating Rates

Table 18-1: Inflation Rates in European Countries, 1966-1972 (percent per year)

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</thead>
<tbody>
<tr>
<td>Britain</td>
<td>3.6</td>
<td>2.6</td>
<td>4.6</td>
<td>5.2</td>
<td>6.5</td>
<td>9.7</td>
<td>6.9</td>
</tr>
<tr>
<td>France</td>
<td>2.8</td>
<td>2.8</td>
<td>4.4</td>
<td>6.5</td>
<td>5.3</td>
<td>5.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Germany</td>
<td>3.4</td>
<td>1.4</td>
<td>2.9</td>
<td>1.9</td>
<td>3.4</td>
<td>5.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Italy</td>
<td>2.1</td>
<td>2.1</td>
<td>1.2</td>
<td>2.8</td>
<td>5.1</td>
<td>5.2</td>
<td>5.3</td>
</tr>
</tbody>
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Worldwide Inflation and the Transition to Floating Rates

**Figure 18-5**: Effect on Internal and External Balance of a Rise in the Foreign Price Level, $P^*$

Exchange rate, $E$

Distance = $E\Delta P^*/P^*$

Fiscal ease ($G\uparrow$ or $T\downarrow$)
Worldwide Inflation and the Transition to Floating Rates

Table 18-2: Changes in Germany’s Money Supply and International Reserves, 1968-1972 (percent per year)

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<tbody>
<tr>
<td>Money supply</td>
<td>6.4</td>
<td>-6.3</td>
<td>8.9</td>
<td>12.3</td>
<td>14.7</td>
</tr>
<tr>
<td>Official international reserves</td>
<td>37.8</td>
<td>-43.6</td>
<td>215.7</td>
<td>36.1</td>
<td>35.8</td>
</tr>
</tbody>
</table>

In an open economy, policymakers try to maintain internal and external balance.

The gold standard system contains a powerful automatic mechanism for assuring external balance, the price-specie-flow mechanism.

Attempts to return to the prewar gold standard after 1918 were unsuccessful.

- As the world economy moved into general depression after 1929, the restored gold standard fell apart and international economic integration weakened.
The architects of the IMF hoped to design a fixed exchange rate system that would encourage growth in international trade.

To reach internal and external balance at the same time, expenditure-switching as well as expenditure-changing policies were needed.

The United States faced a unique external balance problem, the confidence problem.